

REMARKS/ARGUMENTS

Favorable consideration of this application is respectfully requested.

Claims 1-12 are presented for examination. Claim 2 has been amended to correct a typographical error and Claim 4 has been amended to correct a lack of antecedent basis for “the availability criteria” by incorporating such basis from Claim 3. Support for these amendments is believed to be clear from the originally presented and previously presented claim limitations so that no new matter has been introduced.

The outstanding Official Action presented an improper objection to Claim 4 under 37 CFR § 1.75(c) and a rejection of Claims 1-3 and 5-12 under 35 U.S.C. §103(a) as being unpatentable over Johansson et al. (U.S. Patent Application Publication No. 2002/0044549, hereinafter “Johansson”) in view of Habetha (U.S. Patent No. 7,061,895).

Applicant notes that 37 CFR § 1.75 (c) only states that “[a] multiple dependent claim shall not serve as a basis for any other multiple dependent claim.” Nothing in 37 CFR § 1.75 precludes a multiple dependent claim from serving as a basis for a **non-multiple** dependent claim. Here, Claim 4 is not a multiple dependent claim so 37 CFR § 1.75 (c) does **NOT** prohibit Claim 4 from depending on multiple dependent Claim 3.

Accordingly, withdrawal of this objection and the treatment of Claim 4 on the merits is respectfully requested. To the extent that this treatment is in an Action rejecting Claim 4, such Action cannot be made final.

Applicant again notes that the claimed subject matter is directed to providing channel allocation in an ad-hoc radio communication network using Code Division Multiple Access (CDMA) as the multiple access scheme. The ad-hoc radio communication network is formed as a system including devices gathered together to form piconets. One of the devices in each of the formed piconets is designated as a piconet coordinator (PNC). The set of available CDMA codes is split into pre-defined disjointed subsets of CDMA codes (C_1) known by each

device. Each new device added to the system scans the new device radio environment looking for any subset of CDMA codes (C_i) that are presently being used by an associated existing piconet. If the scanning determines that no subset of CDMA codes (C_i) are presently being used by an existing piconet, the new device is designated as a piconet coordinator (PNC) of a new piconet and a subset of the CDMA codes (C_i) is selected for use in the new piconet. On the other hand, if the scanning reveals a set of one or more existing piconets are using corresponding subsets of CDMA codes (C_i), the availability of any of the one or more existing piconets as to adding the new device thereto is determined and the new device is added to an available one of the one or more existing piconets.

Turning to Johansson, and as noted in the last response, this reference is concerned with a piconet system using “Bluetooth” units that use standard “Bluetooth” **time division multiplexing and the standard “slave” to “master” relationship** in which the slaves cannot directly communicate, all communication being through the “master.” See paragraph [0006] of Johansson and note the description of “Bluetooth” as using “time division multiplexing” at col. 4, lines 48-50 of U.S. Patent No. 7,164,886 (Mowery, et al.), for example. Clearly the Johansson teachings of a piconet system using “Bluetooth” units that use standard “Bluetooth” time division multiplexing and the standard “slave” to “master” relationship in which the “slave” units can only communicate through the master.

Also, paragraph [0017] of Johansson teaches that in general a new device joins an existing piconet by use of a “PAGE message” as follows:

When a Bluetooth unit desires to establish a connection with a neighboring node, the Bluetooth unit sends a PAGE message. A PAGE message consists of the Device Access Code (DAC), derived from the BD_ADDR of the paged Bluetooth unit. A Bluetooth unit, e.g., Bluetooth unit 2, receiving a PAGE message including its own DAC responds with an identical packet, i.e., a packet including only the DAC of the paged Bluetooth unit. The paging Bluetooth unit, i.e., Bluetooth unit 1, then replies with an FHS packet, including the BD_ADDR of the paging Bluetooth unit (Bluetooth unit 1), the current value of the internal clock of the paging Bluetooth unit (Bluetooth unit 1), the AM_ADDR assigned to the paged Bluetooth unit (Bluetooth unit 2) and some other parameters. The paged Bluetooth unit

(Bluetooth unit 2) then responds with its DAC and thereby the connection between the two Bluetooth units is established.

What is clear from this paragraph [0017] disclosure is that there is no teaching of scanning the radio environment to look for anything. The “Bluetooth” unit sending the “PAGE message” must already know the BD_ADDR of the Bluetooth unit it is sending the “PAGE message” to as the Device Access Code (DAC) must be derived from the BD_ADDR of that Bluetooth unit.

Page 3 of the outstanding Action distorts this teaching of paragraph [0017] of Johansson as to a “PAGE message” that is sent to a known “Bluetooth” unit to be a “Page scan for a broadcast address in a piconet” at line 17. PTO assumptions are not reference teachings and cannot be used in place of the actual reference teachings. *See In re Warner*, 379 F.2d 1011, 1017, 154 USPQ 173, 178 (CCPA 1967) (“The Patent Office has the initial duty of supplying the factual basis for its rejection. It may not, because it may doubt that the invention is patentable, resort to speculation, unfounded assumptions or hindsight reconstruction to supply deficiencies in its factual basis.”).

Page 3, line 16 mentions several other paragraphs of Johansson as to the suggested “PAGE scan for a broadcast address in a piconet” noted at line 17. However, paragraph [0024] merely describes two different types of scatternets, paragraph [0110] merely elaborates on the “MCS” type scatternet finding a requested node, paragraph [0182] elaborates on the other type of scatternet “TS” chain building, and paragraph [0009] merely defines the “Bluetooth Device Address” to be “BD_ADDR” that is assigned when that device is manufactured and the different nature of the piconet master assigned local active member address “AM_ADDR.”

Paragraph [0013] is more relevant in that it discusses an “INQUIRY” procedure to determine if there are neighboring nodes but expressly notes that connection into a neighboring node is still done using the “PAGE” procedure, not the “INQUIRY” procedure.

Paragraph [0014] elaborates on the “INQUIRY” procedure as involving a “Bluetooth” unit wishing to discover neighboring nodes as transmitting an “INQUIRY” message that consists “of only an inquiry access code” that can be general or dedicated to only certain types of “Bluetooth” units. Paragraph [0015] explains how this “INQUIRY” message results in an INQUIRY RESPONSE message.

While the “INQUIRY message” transmitting unit listens for the “INQUIRY RESPONSE message” so it can collect BD-ADDR of neighboring Bluetooth” units, as described in paragraph [0016], this is not part of the actual “PAGE” message procedure described in paragraph [0017] and is not even remotely suggestive of scanning a radio environment looking for traffic on an an existing piconet, much less the specifically claimed scanning of the radio environment “looking for at least one used subset of CDMA codes (C_i) which is associated with an existing piconet.”

Moreover, while paragraph [0018] of Johansson teaches that:

If the paging Bluetooth unit already was the master of a piconet, the paged Bluetooth unit has now joined this piconet as a new slave unit. Otherwise, the two Bluetooth units have just formed a new piconet with the paging Bluetooth unit as the master unit. Since the INQUIRY message does not include any information about its sender, in particular not its BD_ADDR, the Bluetooth unit that initiated the INQUIRY procedure is the only one that can initiate a subsequent PAGE procedure. Thus, the Bluetooth unit initiating an INQUIRY procedure will also be the master of any piconet that is formed as a result of a subsequent PAGE procedure.

This result that the paged unit joins the piconet of the unit doing the paging (and sending the “INQUIRY”) when it is the master of an existing piconet” or that the two units form a new piconet if the paging unit was not the master of an existing piconet is completely different from the requirements of independent Claims 1, 11, and 12 as to how existing piconets are joined or new piconets formed.

To whatever extent that Habetha teaches that “[i]n the ad hoc network, the data can be exchanged between the terminals in accordance with a TDMA, FDMA or CDMA method

(TDMA=Time Division Multiple Access, FDMA=Frequency Division Multiple Access, CDMA=Code Division Multiple Access))” this does not cure the deficiencies noted above as to Johansson.

Also, as it would require a complete redesign of Johansson and a change in the basic operating principle of this reference to use CDMA, MPEP § 2143.01(VI) indicates that no *prima facie* case of obviousness has been established as follows:

VI. THE PROPOSED MODIFICATION CANNOT CHANGE THE PRINCIPLE OF OPERATION OF A REFERENCE

If the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious. *In re Ratti*, 270 F.2d 810, 123 USPQ 349 (CCPA 1959) (Claims were directed to an oil seal comprising a bore engaging portion with outwardly biased resilient spring fingers inserted in a resilient sealing member. The primary reference relied upon in a rejection based on a combination of references disclosed an oil seal wherein the bore engaging portion was reinforced by a cylindrical sheet metal casing. Patentee taught the device required rigidity for operation, whereas the claimed invention required resiliency. The court reversed the rejection holding the "suggested combination of references would require a substantial reconstruction and redesign of the elements shown in [the primary reference] as well as a change in the basic principle under which the [primary reference] construction was designed to operate." 270 F.2d at 813, 123 USPQ at 352

Accordingly the rejection of independent Claims 1, 11, and 12 under 35 U.S.C. §103(a) as being unpatentable over Johansson in view of Habetha is traversed and it is respectfully requested that this rejection be withdrawn.

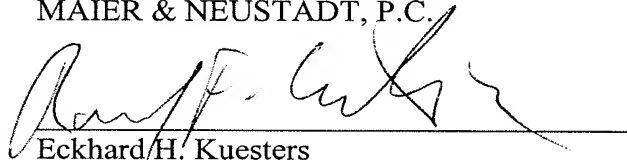
Dependent Claims 2, 3, and 5-10 all depend from Claim 1 either directly or indirectly. Thus, Claims 2, 3, and 5-10 all include the subject matter of Claim 1 argued above. Accordingly, the rejection of dependent Claims 2, 3, and 5-10 under 35 U.S.C. §103(a) as being unpatentable over Johansson in view of Habetha is traversed for the reasons noted above. In addition, each of Claims 2, 3, and 5-10 adds further subject matter that is also not taught or suggested by either Johansson or Habetha considered alone or together in any

proper combination and this rejection of Claims 2, 3, and 5-10 is traversed for this reason as well. It is therefore respectfully requested that this rejection of dependent Claims 2, 3, and 5-10 should also be withdrawn.

Accordingly, it is respectfully submitted that no further issues remain outstanding in the present application, and that this application is clearly in condition for formal allowance and an early and favorable action to that effect is, therefore, respectfully requested.

Respectfully submitted,

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A handwritten signature in black ink, appearing to read 'Eckhard H. Kuesters', is written over a horizontal line.

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